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| 10/593,422 | 09/19/2006 | Gavin Edward Churcher | 36-2009 | 1234 |

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| EXAMINER |
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| BROMELL, ALEXANDRIA Y |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _23 January 2008_.
2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-16_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-16_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _19 September 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

This Office Action is in response to Applicant's amendment of application

10/593,422, filed on 01/23/08, which is a 371 of PCT/GB05/00893.

### *Response to Arguments*

Applicant's arguments filed 01/23/08 have been fully considered but the 35 USC

103 arguments are not persuasive. The 35 USC 101 of claims 1-9 and 10-16 has been

withdrawn.

With respect to claim 1, applicant argues that Yun and Gong do not disclose

'deriving a first lexical chain set from said user query using a predetermined lexical

chaining algorithm, said first lexical chain set comprising one or more lexical chains

representing possible interpretations of said first user query' (remarks, p13 and p14) or

'deriving a subsequent lexical chain set from said subsequent user query using a

predetermined lexical chaining algorithm in conjunction with one or more lexical chains

stored in said lexical chain storage means, identifying a subsequent subset of

documents from said database using said subsequent lexical chain set and a

predetermined information retrieval algorithm' (remarks, p13).

Examiner submits that Yun teaches that a user query is analyzed by step-query

to make a set of lexical words using Lex, [0023]. Further, Examiner submits that Gong

teaches that more than one user query is executed – if the text of an entire document is

searched, each sentence may be executed as a query, so queries are executed until

each sentence has been searched, where the sentences are lexical chains to be

searched, [0010], and relevant documents are returned after executing text search and

summation, [0006].

With respect to claims 2-3, 5-6, and 11-12, the claims are rejected in the analysis

of the independent claims.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.    Determining the scope and contents of the prior art.
2.    Ascertaining the differences between the prior art and the claims at issue.
3.    Resolving the level of ordinary skill in the pertinent art.
4.    Considering objective evidence present in the application indicating
      obviousness or nonobviousness.

Claims 1, 4, 7-10, and 13-16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yun et al. (U.S. Patent Publication 20020120616) in view of Gong et

al. (U.S. Patent Publication 20020138528).

With respect to claim 1, Yun teaches receiving a first user query (i.e. receives

user query, [0023]), deriving a first lexical chain set from said first user query using a

predetermined lexical chaining algorithm, said first lexical chain set comprising one or

more lexical chains each representing ~~possible interpretations~~ a possible interpretation

of said first user query (i.e. lexical chain is derived from step query, or lexical chaining

algorithm, [0023]), storing one or more lexical chains from said first lexical chain set in a

lexical chain storage means (i.e. storing posting, parsing, and document information in a

storage module, [0022, 0045]), identifying a first subset of documents from said

database using said first lexical chain set and a predetermined information retrieval

algorithm (i.e. document group of results retrieved by query, [0025]), and ~~making~~

sending information to the user relating to said first subset of documents available to the

user (i.e. relevant documents presented to user, [0020]). Yun does not explicitly

disclose receiving a subsequent user query and deriving a lexical chain from the

subsequent user query. However, Gong teaches receiving a subsequent user query,

said subsequent user query being related to said first user query (i.e. receiving more

than one user query, [0010]), deriving a subsequent lexical chain set from said

subsequent user query using a predetermined lexical chaining algorithm in conjunction

with one or more lexical chains stored in said lexical chain storage means (i.e. text

summaries are created by finding lexical chains in documents that builds until all

queries are represented, [0010]), identifying a subsequent subset of documents from

said database using said subsequent lexical chain set and a predetermined information

retrieval algorithm, and making information relating to said subsequent subset of

documents available to the user (i.e. information retrieval returns relevant set of

documents for user, [0006]). Yun and Gong are analogous art because they are from

the same field of endeavor of facilitating information retrieval using lexical information. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun and Gong before him or her, to modify the system of Yun with the teachings of Gong in order to use lexical chains for text summarization (Gong, [0010]). The motivation for doing so would have been to present to the user high quality and relevant document information based on queries that the user has run (Gong, [0016]). Therefore, it would have been obvious to combine Gong with Yun to obtain the invention as specified in the instant claim(s).

With respect to claim 4, Yun teaches methods for using a lexical analyzer generator to parse queries [0023]. Gong teaches receiving an indication from a user as to whether a subsequent user query is considered to be related to a previous user query or not (i.e. user determines which documents are most relevant using a relevance score, [0043]). Therefore, the limitations of claim 4 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 7, Yun teaches the database comprises meta-data relating to said information (i.e. HTML tags contain metadata about document, [0048]).

With respect to claim 8, Yun teaches the information in the database is indexed using lexical chains (i.e. database is indexed using lexical chains, [0020-0023]).

With respect to claim 9, Yun teaches the predetermined information retrieval algorithm is arranged to identify documents with reference to said indexed information (i.e. lexical analyzer generator identifies relevant indexed documents, [0023]).

With respect to claim 10, Yun teaches input means for receiving a first user query (i.e. receives user query, [0023]), processor means arranged to derive a first lexical chain set from a first user query using a predetermined lexical chaining algorithm, said first lexical chain set comprising one or more lexical chains each representing possible interpretations of said first user query (i.e. lexical chain is derived from step query, or lexical chaining algorithm, [0023]), storage means arranged to store one or more lexical chains from said first lexical chain set in a lexical chain storage means (i.e. storing posting, parsing, and document information in a storage module, [0022, 0045]), processor means arranged to identify a first subset of documents from said database using said first lexical chain set and a predetermined information retrieval algorithm (i.e. document group of results retrieved by query, [0025]), and output means for making information relating to said first subset of documents available to the user (i.e. relevant documents presented to user, [0020]).  Yun does not explicitly disclose receiving a subsequent user query and deriving a lexical chain from the subsequent user query. However, Gong teaches input means for receiving a subsequent user query, said subsequent user query being related to said first user query (i.e. receiving more than one user query, [0010]), processor means arranged to derive a subsequent lexical chain set from said subsequent user query using a predetermined lexical chaining algorithm in conjunction with one or more lexical chains stored in said lexical chain storage means i.e. text summaries are created by finding lexical chains in documents that builds until all queries are represented, [0010]), processor means arranged to identify a subsequent subset of documents from said database using said subsequent lexical chain set and a

predetermined information retrieval algorithm, and output means for making information

relating to said subsequent subset of documents available to the user (i.e. information

retrieval returns relevant set of documents for user, [0006]). Yun and Gong are

analogous art because they are from the same field of endeavor of facilitating

information retrieval using lexical information.  At the time of the invention, it would have

been obvious to one of ordinary skill in the art, having the teachings of Yun and Gong

before him or her, to modify the system of Yun with the teachings of Gong in order to

use lexical chains for text summarization (Gong, [0010]).  The motivation for doing so

would have been to present to the user high quality and relevant document information

based on queries that the user has run (Gong, [0016]).  Therefore, it would have been

obvious to combine Gong with Yun to obtain the invention as specified in the instant

claim(s).

　　　With respect to claim 13, Yun teaches methods for using a lexical analyzer

generator to parse queries [0023]. Gong teaches input means for receiving an indication

from a user as to whether a subsequent user query is considered to be related to a

previous user query or not (i.e. user determines which documents are most relevant

using a relevance score, [0043]). Therefore, the limitations of claim 13 are rejected in

the analysis of claim 10 above, and the claim is rejected on that basis.

　　　With respect to claim 14, Yun teaches the database storage comprises meta-

data relating to said information (i.e. HTML tags contain metadata about document,

[0048]).

With respect to claim 15, Yun teaches the information in the database storage is indexed using lexical chains (i.e. database is indexed using lexical chains, [0020-0023]).

With respect to claim 16, Yun teaches the predetermined information retrieval algorithm is arranged to identify documents with reference to said indexed information (i.e. lexical analyzer generator identifies relevant indexed documents, [0023]).

Claims 2-3, 5-6, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al. (U.S. Patent Publication 20020120616) in view of Gong et al. (U.S. Patent Publication 20020138528), further in view of Tarquini (U.S. Patent Publication 20030093517).

With respect to claim 2, Yun and Gong teach methods for using a lexical analyzer generator to parse queries (Yun, [0023]), and outputting high quality and relevant search documents (Gong, [0016]). Yun and Gong do not explicitly disclose deriving a lexical chain from subset of documents. However, Tarquini teaches deriving a lexical chain set from said subset of documents (i.e. lexical tree branch is populated from limiting search, [0049]), and updating said lexical chain storage means in view of said lexical chain set derived from said subset of documents (i.e. lexical search tree is updated, [0049]). Yun, Gong, and Tarquini are analogous art because they are from the same field of endeavor of facilitating information retrieval. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong, and Tarquini before him or her, to modify the system of Yun with the teachings of Gong and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]). The motivation for doing so would have been to filter and retrieve documents, or pages,

for a user by using a lexical search tree data structure to store information (Tarquini, [007]). Therefore, it would have been obvious to combine Tarquini with Gong with Yun to obtain the invention as specified in the instant claim(s).

With respect to claim 3, Yun teaches methods for using a lexical analyzer generator to parse queries [0023]. Gong teaches receiving an indication from a user as to which documents from said subset of documents are considered to be relevant (i.e. user determines which documents are most relevant using a relevance score, [0043]). Yun and Gong do not explicitly disclose deriving a lexical chain from subset of documents, or updating respective storage information. However, Tarquini teaches deriving a lexical chain set from those documents which are considered to be relevant (i.e. lexical tree branch is populated from limiting search, [0049]), and updating said lexical chain storage means in view of said lexical chain set derived from said documents which are considered to be relevant (i.e. lexical search tree is updated, [0049]). Yun, Gong, and Tarquini are analogous art because they are from the same field of endeavor of facilitating information retrieval. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong, and Tarquini before him or her, to modify the system of Yun with the teachings of Gong and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]). The motivation for doing so would have been to filter and retrieve documents, or pages, for a user by using a lexical search tree data structure to store information (Tarquini, [007]). Therefore, it would have been obvious to combine Tarquini with Gong with Yun to obtain the invention as specified in the instant claim(s).

With respect to claim 5, Yun and Gong teach methods for using a lexical analyzer generator to parse queries (Yun, [0023]), and outputting high quality and relevant search documents (Gong, [0016]), and receiving a subsequent user query (Gong, [0010]). Yun and Gong do not explicitly disclose deriving a subsequent lexical chain and identifying corresponding documents. However, Tarquini teaches deriving a subsequent lexical chain set, and identifying a subsequent subset of documents and making information relating to said subsequent subset of documents available to the user are repeated in the event that an indication is received from a user that a subsequent user query is considered to be related to a previous user query (i.e. lexical tree branch is populated from further limiting search, if query is related to previous query, [0049]). Yun, Gong, and Tarquini are analogous art because they are from the same field of endeavor of facilitating information retrieval. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong, and Tarquini before him or her, to modify the system of Yun with the teachings of Gong and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]). The motivation for doing so would have been to filter and retrieve documents, or pages, for a user by using a lexical search tree data structure to store information (Tarquini, [007]). Therefore, it would have been obvious to combine Tarquini with Gong with Yun to obtain the invention as specified in the instant claim(s).

With respect to claim 6, Yun and Gong teach methods for using a lexical analyzer generator to parse queries (Yun, [0023]), and outputting high quality and relevant search documents (Gong, [0016]) and receiving a subsequent user query

(Gong, [0010]). Yun and Gong do not explicitly disclose deriving a subsequent lexical

chain and identifying corresponding documents. However, Tarquini teaches deriving a

subsequent lexical chain set, and identifying a subsequent subset of documents and

making information relating to said subsequent subset of documents available to the

user are repeated in the event that no indication is received from a user that a further

user query is considered not to be related to a previous user query (i.e. lexical tree

branch is populated from further limiting search, if query is not related to previous query,

[0049]). Yun, Gong, and Tarquini are analogous art because they are from the same

field of endeavor of facilitating information retrieval. At the time of the invention, it would

have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong,

and Tarquini before him or her, to modify the system of Yun with the teachings of Gong

and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]). The

motivation for doing so would have been to filter and retrieve documents, or pages, for a

user by using a lexical search tree data structure to store information (Tarquini, [007]).

Therefore, it would have been obvious to combine Tarquini with Gong with Yun to

obtain the invention as specified in the instant claim(s).

With respect to claim 11, Yun and Gong teach methods for using a lexical

analyzer generator to parse queries (Yun, [0023]), and outputting high quality and

relevant search documents (Gong, [0016]). Yun and Gong do not explicitly disclose

deriving a lexical chain from subset of documents. However, Tarquini teaches

processor means for deriving a lexical chain set from an identified subset of documents

(i.e. lexical tree branch is populated from limiting search, [0049]), processor means for

updating said lexical chain storage means in view of said lexical chain set derived from said subset of documents (i.e. lexical search tree is updated, [0049]). Yun, Gong, and Tarquini are analogous art because they are from the same field of endeavor of facilitating information retrieval.  At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong, and Tarquini before him or her, to modify the system of Yun with the teachings of Gong and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]).  The motivation for doing so would have been to filter and retrieve documents, or pages, for a user by using a lexical search tree data structure to store information (Tarquini, [007]).  Therefore, it would have been obvious to combine Tarquini with Gong with Yun to obtain the invention as specified in the instant claim(s).

With respect to claim 12, Yun teaches methods for using a lexical analyzer generator to parse queries [0023]. Gong teaches input means for receiving an indication from a user as to which documents from said subset of documents are considered to be relevant (i.e. user determines which documents are most relevant using a relevance score, [0043]).  Yun and Gong do not explicitly disclose deriving a lexical chain from subset of documents, or updating respective storage information.  However, Tarquini teaches processor means for deriving a lexical chain set from those documents which are considered to be relevant (i.e. lexical tree branch is populated from limiting search, [0049]), and processor means for updating said lexical chain storage means in view of said lexical chain set derived from said documents which are considered to be relevant (i.e. lexical search tree is updated, [0049]). Yun, Gong, and Tarquini are analogous art

because they are from the same field of endeavor of facilitating information retrieval. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Yun, Gong, and Tarquini before him or her, to modify the system of Yun with the teachings of Gong and Tarquini in order to filter relevant documents for a user (Tarquini, [0007]). The motivation for doing so would have been to filter and retrieve documents, or pages, for a user by using a lexical search tree data structure to store information (Tarquini, [007]). Therefore, it would have been obvious to combine Tarquini with Gong with Yun to obtain the invention as specified in the instant claim(s).

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDRIA Y. BROMELL whose telephone number is (571)270-3034. The examiner can normally be reached on M-R 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4034.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/                                    Alexandria Y Bromell
Supervisory Patent Examiner, Art Unit 2167              Examiner
                                                        Art Unit 2167

AYB
May 19, 2008